



POSITION: Computer Science Cybersecurity Researcher

JOB ID: 64497

MANAGER: Heidi Ammerlahn

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DEPARTMENT DESCRIPTION

The Informatics and Decision Sciences Department at Sandia National Laboratories in Livermore, California, develops new algorithms, theory, and software in machine learning, matrix and tensor methods, information retrieval, data mining, complex-systems modeling and analysis, and related areas. We deal with large-scale, complex, real-world problems that require innovative but realistic solutions, often using advanced hardware platforms. The work of the department impacts a wide variety of applications in national security, complex-systems engineering, systems studies, and other areas.

JOB DESCRIPTION

Our department has multiple openings in computer science and applied mathematics for full-time entry-level and experienced researchers. We are especially seeking experts who can apply theoretical computer-science techniques to cybersecurity. Potential areas of research include, but are not limited to, the following: computational game theory, formal verification, digital forensics, anomaly detection, computational logic, complex systems, and network sciences. Our staff members are expected to conduct innovative research, publish and present results in refereed journals and conferences, develop software, and seek out new and interesting problems of national importance.

QUALIFICATIONS

These positions require a strong record of academic performance and an advanced degree (PhD or equivalent) in computer science, mathematics, statistics, or a related area. Candidates must be able to work in a collaborative research environment and must provide evidence of relevant research expertise in the form of technical publications, presentations, software, and/or application knowledge. Other required qualifications include software development competence in C++, Java, MATLAB, or a related language; proficiency in solving problems, prioritizing work, and making decisions; and excellent written- and oral-communication skills.

Expertise in one or more of the following areas is desired for these positions: game theory, statistics and inference, computational logic, complexity theory, programming language theory, graph analysis, machine learning, computational combinatorics, data mining, the mathematics of complex systems, information theory, decision theory, data fusion, natural-language processing, and systems modeling. Other desired qualifications include a background in solving practical problems in science and engineering; encounters with real-world data; and proficiency in software engineering, especially an understanding of object-oriented programming techniques and best practices, high-performance computing experience, and/or SQL database knowledge. For experienced candidates, additional desired qualifications include (1) professional service to the community (e.g., service on program committees, workshop organizations, and/or editorial work) and (2) experience with obtaining and managing research funding (e.g., building project teams, writing grants and progress reports, and working with sponsors).

Candidates must be able to obtain a U.S. Department of Energy security clearance for these positions. To obtain a security clearance, U.S. citizenship is required.

Apply at: <http://sandia.gov/careers/search-openings.html>. Click on Search for Openings, and type the Job ID number **64497** into the Keywords box. Click on the Search button to access this job opening, and complete an online application.

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Sandia National Laboratories is an Equal Opportunity Employer M/F/D/V. If this position requires a security clearance granted by the U.S. Department of Energy (DOE), U.S. citizenship and employee eligibility for clearance processing will be required at the time of hire. If you hold dual citizenship and accept a job offer for a position that requires a DOE-granted security clearance, you may be asked by the DOE to renounce your foreign citizenship and retain only your U.S. citizenship.